

**EPA Incorporation of Yakama Nation Technical Comments submitted January 26, 2018
Pre-RD Surface Sediment Field Sampling Plan (FSP) dated January 17, 2018
Portland Harbor Superfund Site**

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Comment	How incorporated in EPA comments
1. The surface sediment FSP is fairly complete and provides appropriate guidance for the sampling effort to a large extent. It was noted that the FSP has references to other guidance to be found in the DQMP, but such guidance was not easily found. Any such cross references should include that relevant section of the referenced document. Similarly, a number of sections refer to SOPs from the previous sediment studies for the Remedial Investigation (RI) for important details of the planned effort. Such references, which make it difficult to review those details, is inappropriate for this FSP. At a minimum the referenced SOPs should be appended to the FSP.	This comment is addressed by EPA Primary Comment 1.
2. Section 1.2. It is stated that additional surface sediment samples may be collected to "reoccupy" 2004 RI surface sediment locations. However, absolutely no information is provided on locations, contingency locations, or field sampling procedures for these samples. The FSP must contain this information.	This comment is addressed by EPA Primary Comment 5.
3. Section 1.2. Yakama Nation is not convinced that one can collect representative samples to "reoccupy" 2004 locations. It should also be noted that Yakama Nation does not support efforts to use these data as a backward looking MNR effort for reasons previously provided during ASAOC draft reviews.	EPA notes this comment from Yakama Nation. In addition, this comment is partially addressed by EPA Primary Comment 5.
4. 2.1.1 Statistical comparison with 2004. It does not appear that the sampling conducted in 2004 was collected using the same, or a similar, stratified random design, so how can they be compared? In addition, comparing one snapshot in time to another snap shot in time does not lend itself to robust statistics without multiple events to understand the dynamic seasonality of the system.	EPA agrees with this and the previous comment from Yakama Nation that statistical comparisons of chemical data between the 2004 surface sediment database and the proposed surface sediment data collection/database cannot be used to make back comparisons of monitored natural recovery (MNR). Section 2.1.1 of the FSP and Section 3.2.2 of the PDI Work Plan describe how the number of samples proposed in this sample collection round was determined by analyzing the level of variability in the surface weighted average concentrations. It is EPA's understanding that the statistical comparison with the 2004 dataset was

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	only used for this purpose. The proposed surface sediment data collection/dataset will be used to establish a baseline for future long-term monitoring, not to make back comparisons of MNR.
5. Section 2.1.2. The text states that “...178 targeted surface samples will be collected... In addition, 60 surface grab samples will be co-located...” Please clarify whether a total of 178 or 178+60 samples will be collected.	This comment is addressed by EPA TBC comment 2.
6. Section 3.3 This section mentions “blind duplicates,” while Section 4.9. discusses in some detail the collection those duplicates. However as noted in the notes on QAPP, the way those samples are labeled to be actual “blind” samples is not clear.	The field duplicate samples are “blind” in the sense that both the parent sample and the duplicate are coming from a single source and one could be the other. The sample nomenclature for the surface sediment samples is detailed in Section 4.2.1.1 of the PDI QAPP.
7. Sections 4.1 and 4.2. A more thorough discussion of the station positioning would be helpful. While the GPS system may be capable of 1- to 2- meter resolution, it is not clear how stable the anchoring system is, especially under potential more extreme river flow or weather conditions. Similarly, the relationship between the GPS sensor and the deployed grab should be discussed.	These two sections contain cross-references to RI/FS FSPs, which need to be changed. This comment is addressed by EPA Primary Comment 1.
8. Section 4.3. This section discusses the collection of the triplicate grabs that will be composited for each surface sediment sample by pivoting the overhead winch a few feet. However Section 4.1 states that the sampling vessels have A-frames. It is not clear that the A-frames are the same as an overhead winch or can be rotated s indicated.	This comment has been incorporated into EPA TBC comment 7.
9. 4.4. Contingency. This section, along with Section 4.3, raises the question of whether there is a maximum distance between grabs for the three grabs for them to be acceptable for compositing. This metric should be stated clearly	This comment is addressed by EPA Primary Comment 10 and TBC comment 7.
10. Figures. Sample locations. Figure 2e. Why is River Mile 11 East given many random samples and no SMA samples? This placement would seem to bias at least PCBs higher.	The purpose of the stratified random samples is to determine baseline conditions while the SMA samples are used to further refine the Alternative F Mod SMA footprints. The River Mile 11E SMA is being addressed by the RM 11E Group who have entered into an Administrative Order on Consent with EPA in April 2013 and is separate from the Pre-RD Group’s sampling effort.
11. Additional details on additional field sampling procedures are cited, but not provided in this FSP. For	This comment is addressed by EPA Primary Comment 1.

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example: Sections 4.6, 4.7, 4.8. This FSP must be complete for review and use in the field.	